BASUTOLAND

Annual Report of the Department of Agriculture

For the Report Year ended 30th September

1941

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Annual Report of the Department of Agriculture

FOR THE YEAR ENDED 30th SEPTEMBER, 1941.

Due to war conditions the Annual Report of the Department of Agriculture has been cut down to an essential minimum, as was the case last year.

2. The report, as in the past, is divided into three divisions:—

(1) Agriculture

(2) Veterinary and Livestock

(3) Anti-Erosion Work.

3. Owing to depletion in staff the activities of the Department have been curtailed to some extent in respect of the less absolutely essential services; the most notable of these being the deletion of the annual census of all livestock from the programme of work.

4. It is very regrettable to have to record that the output of anti-erosion construction work has materially decreased, as is disclosed by the Engineer's report, and that the cost per acre of contour terracing and dam construction, etc., has materially increased. These two unfortunate incidents are not due to lack of staff, but to the long delays which occur, owing to war conditions, in securing spare parts and renewals for power plants, etc., also to the heavy and rapidly rising increase in cost of spare parts, equipment and material of every description, and to the more steady but not so great increase in the cost of petrol, fuel, oil, etc.

5. Anti-erosion work is so essential for the preservation of the country for posterity, that it is felt that it must continue even if ultimately only animal traction remains available.

6. It is pleasing to note the excellent crop production figures for the year, as shown in the Agricultural Section of this report. These figures, except for those of 1937, are the best on record. The season, from the rainfall distribution point of view and incidence of frost, can only be regarded as average. The results secured, therefore, reflect considerable credit on the efforts made by the Paramount Chief, the Chiefs, the people and Government propaganda, to ensure as high crop production as possible, provisional on weather conditions prevailing during the production period.

7. The wheat breeding work, so essential to this territory's present and future welfare, has made excellent progress. The production and distribution of considerable quantities of stud wheat, kaffir corn and maize seed, etc., is now having a marked effect on crop production in many parts of the territory.

8. In this the seventh Annual Report published by this Department, there are three outstanding items deserving of special mention. These are the results achieved by the Government after five or six years steady, unremitting work in order to secure the full support and co-operation of the Paramount Chief and the people on the one hand and the business community on the other. The results are:—

(i) The issuing of twelve orders by the Paramount Chief under the Native Administration Proclamation No. 61 of 1938.

These orders cover or govern all the principal operations necessary in carrying out anti-erosion works. It is considered that these twelve points constitute a unique co-operative achievement, seeing that each item may be likened to a spoke in a wheel which cuts through Native agricultural practice and custom.

(ii) The issuing of an order by the Paramount Chief regarding the eradication of smut from wheat, under the Native Administration Proclamation No. 61 of 1938, and the full and free acceptance by the trading community of a draft Proclamation dealing with the following points:—

(a) The prohibition of the purchase and sale of smut-infected wheat.
(b) The prohibition of the export of uncleaned and ungraded wheat.
(c) Allowing for the inspection, control and licensing of wheat threshing machines operating in the territory.

These crowning achievements will place the marketing of Basutoland's second greatest cash industry product on a permanently sound, economic basis.

(iii) The support accorded by the Paramount Chief to the Government's strongly advocated policies—(a) to check and finally eliminate the practice of shearing very short wool, and (b) to the simple classification of wool, which classification can be carried out by the people—will greatly assist the Government's thorough and complete sheep improvement and wool classing schemes, and should result at a relatively early date in the marketing, on a satisfactory basis, of the whole of Basutoland's biggest agricultural cash product. The progress of this project is further implemented by the support now accorded by the trading community, who are not only paying higher differential prices for Government classed and simply classed wool than for unclassed wool, but are in many cases carrying out extensive classing operations themselves under the supervision of the Department's Staff, using Native classers trained by this Department.

CONCLUSION:

I desire to record my thanks and appreciation to all those who have supported the work, and particularly to my staff for their sustained effort and enthusiasm during a difficult year of increased burdens due to war conditions and requirements.

Signed: R. W. THORNTON,
19.12.41. Director of Agriculture.

AGRICULTURAL DIVISION.

Part I.

STAFF:

European: The Staff remained the same as that of last year.

Native: 34 Agricultural Demonstrators were employed.

Part II.

AGRICULTURAL AND WEATHER CONDITIONS:

Good rains fell from November to February. This enabled a larger acreage than usual to be sown to crops.

The latter part of the summer and the whole of the autumn was much drier than usual. This prevented some of the later sown crops reaching maturity, and was also responsible for less wheat being planted in the lowlands, especially south of the Mafeteng district.

A late frost on the 24th November, seriously damaged the sorghum and maize crops in the higher altitudes of the territory. All growth was finally stopped by a frost on the 15th April.

The winter was cold and dry; up to 20 degrees of frost was registered on several occasions.

The average rainfall for the territory was 28.11 inches against 30.72 inches for 1939-40.

Report on the Condition of the Chief Agricultural Crops, 1940-41.

Good crops of maize and kaffir corn and a fair crop of wheat were reaped in the lowlands. In the foothill and mountain districts the maize and kaffir corn crops were seriously damaged in November by an untimely frost, but later partially recovered. An excellent crop of wheat was reaped in these districts. The maize crop was much better than was expected. The pea crop was not so large as usual.

Incidence of Insect Pests:

No swarms of Brown or Red Winged locusts invaded the territory.

More damage than usual, especially in the southern districts, was done to gardens by the "Elegant Grasshopper." Advice on the methods of control are constantly being given.

Cutworm was very prevalent this season and did considerable damage.

Maize Stalk Borer damaged some of the earlier sown maize, but in general this insect was responsible for less damage than usual.

Estimates:

Agricutural Production for 1941, and the preceding year.

Crops.	1936.	1937.	1938.	1939.	1940.	1941.
Maize	491,114	1,135,983	873,750	758,835	691,542	1,055,268
Sorghum	184,179	297,117	197,812	164,129	139,965	274,156
Wheat	245,572	383,645	257,812	364,802	398,861	394,688
Peas, Beans and Other Crops ...	61,593	148,558	109,218	156,562	133,353	73,593

Remarks: These crop returns are given in bags of 200 lbs.

Agricultural Associations:

There are now 106 Associations in this territory. These consist of 20 Men's, 51 Women's and 35 Mixed Associations.

The combined membership of all the Associations is 3,336.

Markets for Native Produce:

These continue to be well patronised and served a very useful purpose for the disposal of surplus vegetables.

Agricultural Shows:

Agricultural Shows were held at nine centres. Many outstanding exhibits were made in the classes for Vegetables, Maize, Sorghum and Beans.

Rodent Destruction:

The general situation was very much the same as in 1939-40.

Lectures and Demonstrations:

During 1940-41, 161 lectures and demonstrations were given by the Agricultural Officers, and 606 by the Native Agricultural Demonstrators. The necessity for increased food production during the war period was stressed on every occasion.

Scheme for the Improvement of Wheat and Methods of Sale:

The scheme, based on a Five Year Plan for the Improvement of Wheat and the Methods of Sale which was instituted last season and which was helped by a fair season in the lowlands and a good one in the mountain district, is progressing favourably.

The chief objects of the scheme are:—

(a) To produce high protein wheat throughout the country.

(b) To eliminate smut.

(c) *To ensure that all wheat shall leave the country free of foreign matter.*

During the season 1940-41, a total crop of 3,607½ bags of Marquis Wheat was produced from seed issues made by the Government in 1939-40. 1,007½ bags were returned for re-issue, and 68¾ bags were bought for re-issue. 30 bags, some of which were grown on Govern-

ment Multiplication Plots, and other bought from growers, were also issued as seed in the districts where Marquis Wheat previously had not been grown. 253 bags of Government Selected Marquis Wheat were sold for seed by the traders, and 39 bags were exchanged for unsuitable seed.

In the Mountain districts there are many growers of Marquis Wheat who have obtained their seed from other sources than the Government.

The following are the particulars of the other varieties of Canadian Wheats which were introduced last year, or which have been issued this season for the first time after trial and multiplication on Government Plots.

Variety.	Crop grown 1940-1941 from previous Govt. issues. (Bags of 200 lbs.)	Returned for issue, 1941-42. Bags of 200 lbs.)	Bought locally for Issue, 1941-42. (Bags of 200 lbs.)	Grown on Govt. Multiplication Plots, and bought from growers, chiefly for issue in new districts, '41-42. (Bags of 200 lbs.)	Total amount for Issue, 1941-42. (Bags of 200 lbs.)
Red Bobs	150¾	43	11¼	37	91¼
Ceres	114½	31	8½	18	57½
Reliance	266¾	56½	26½	52	135
Reward				18	23¼
Garnet	92½	47¼	5¼	6½	53¾

Report of the General Agricultural Demonstration Work Carried out in the Territory during 1940-1941.

The results of the Agricultural Demonstration work carried out during the season under review have been outstanding.

Field competitions were again held in each demonstration area for:—

(a) The best cultivated fields of spring or autumn sown crops (566 entries were made in the various demonstration centres in the territory).

(b) The best managed fields for seed production (36 entries were made in this section).

A sum of £39 was expended as prize money in these field competitions.

The following are the particulars of the demonstration work carried out during the season:—

Results of Demonstration Work for the Year 1940-41.

Crop.	Demonstration Plots.			Native Worked Check Plots.		
	No. of Plots.	Acreage.	Yield in bags per acre.	No. of Plots.	Acreage.	Yield in bags per acre.
Wheat	357	1025.5	2.79	367	945	1.48
Maize	283	795.3	5.3	336	892.25	2.5
Sorghum	70	214	5.92	73	208.25	2.48
Beans	12	20.75	3.1	Nil	Nil	Nil
Peas	6	3.5	5.5	5	4	1.2

Vegetable Gardening and Fruit Culture:

The campaign to encourage the Basuto to grow vegetables and fruit in correctly terraced gardens continues to be most successful and makes a very useful addition to the diet of many people.

The usual free issue of vegetable seeds was made to Native gardeners who had followed out the advice of the Administration when laying out their gardens.

Competitions for the best gardens were held in each demonstration area and an amount of £115 2s. 0d. was expended in prize money. 3,732 gardens were shown in these competitions out of a grand total of 6,870 for the whole territory. There was an increase of 869 gardens this season over the total number worked last year. There are also many Natives througout the territory who have laid out good vegetable gardens themselves, following the example of those who have been helped by the advice of the Administration.

15,787 Peach trees, 100 Fig trees and 2,500 Vines, raised in the Government nurseries, were distributed free to owners of well-managed gardens. 1,800 named varieties of Peaches were bought by the people themselves.

Comparative Manurial Trials—1940-41.

A number of manurial trials were carried out by the Agricultural Demonstrators. The results are given on the next page in bags of 200 lbs.

(SEE TABLE ON NEXT PAGE)

Report on the Government Scheme for the Supply of Superphosphate to Native Farmers at cost price.

A total of 758 bags of Superphosphate was bought by the Basuto during 1940-41, as against 1,040 bags the previous season. Good results were obtained by the Native farmers using Superphosphate.

Part III.

Financial Statement.

Revenue:	Expenditure:
Nil.	£11,212 1s. 4d.

Signed: L. F. WACHER,
Senior Agricultural Officer.

RESULTS FOR 1940-41.

CROP:	SUPERPHOSPHATE				KRAAL ASH				KRAAL MANURE				NO MANURE			
	No. of Plots	Acreage	Amount of fertilizer per acre	Bags per acre harvested	No. of Plots	Acreage	Amount of fertilizer per acre	Bags per acre harvested	No. of Plots	Acreage	Amount of fertilizer per acre	Bags harvested (per acre)	No. of Plots	Acreage	Amount of fertilizer per acre	Bags per acre harvested
MAIZE	39	78	200 lbs. per Acre	6.4	14	14	Approx 4,000 lbs. per acre	5.8	21	21	3/4 tons per acre	6.4	42	10.05	Check Plots No Manure	3.2

VETERINARY AND LIVESTOCK DIVISION.

Staff Changes:

The strength of the European Staff remained the same as last year, the only changes being (a) the secondment of Mr. R. R. Horne from Agriculture I to Agriculture II to fill the vacancy created by the death of Mr. H. L. van Vuuren, and (b) the promotion of Mr. P. M. Wilhelm to Agricultural and Livestock Officer.

Part I.

REVIEW OF GENERAL LIVESTOCK POSITION.

Generally speaking, the livestock position continues to make satisfactory headway from the point of view of improvement due to the various measures in vogue in the territory.

Part 2 (a)

Main features of the Department's work on disease control.

ANTHRAX: One outbreak of anthrax occurred during the year involving the death of two head of cattle.

QUARTER EVIL: Owing to the vast amount of propaganda work undertaken in recent years the popularity of preventive inoculation is now most marked and as a result the incidence of the disease in cattle will soon diminish.

BLUE TONGUE (CATARRHAL FEVER): All outbreaks were localised in certain lowland areas. The mortality was slight. Only a few farmers resorted to preventive inoculation.

SOUTH AFRICAN HORSE-SICKNESS: There were a few outbreaks in the lowlands. The disease manifested itself in the Pneumonic form.

INTERNAL PARASITISM OF SMALL STOCK: The compulsory monthly dosing of small stock under official supervision was carried out for seven months only. The remaining five months were devoted to wool classing operations. A survey is to be carried out to ascertain if small stock suffered any reverse as the result of the recess referred to above.

Part 2 (b)

Animal Husbandry.

(i) **SMALL STOCK:** No census of small stock was taken during the year. Sheep farmers continue to take a lively interest in their flocks. There is, however, room for greater vigilance on their part, for instance, most flock owners neglected to continue monthly dosing for worms when the Government withdrew the supervision referred to in Part 2 (a). The classing of wool under official supervision has widened considerably in scope and patronage. The poundage of wool classed under official supervision during last season was 980,187

representing an increase of 596,987 lbs. over the previous season. The output of classed wool was therefore nearly trebled. The following table summarises the position during the last four seasons:—

	1937/38 Season.	1938/39 Season.	1939/40 Season.	1940/41 Season.
No. of flocks	505	772	965	3,437
Number of sheep shorn	49,629	72,864	85,230	198,290
Total amount of wool shorn	250,645 lbs.	347,440 lbs.	383,200 lbs.	980,187 lbs.
Average number of sheep per flock	98	94	88	81
Average weight per sheep	5.05 lbs.	4.77 lbs.	4.5 lbs.	+ 4.94 lbs.
Percentage of combing wool	29.32%	29.89%	33.23%	30.44%
Percentage of short wool	17.28%	21.85%	20.28%	14.79%
Percentage of XM wool	16.56%	19.24%	12.82%	15.60%
Percentage of outsorts wool	36.84%	29.02%	33.67%	39.17%
Number of bales of classed wool, taking the average weight of a bale at 320 lbs. ...	783 bales	1,086 bales	1,198 bales	3,063 bales

+ This wool figure per unit does not reflect the annual production per sheep, as the animals shorn include lambs and many sheep with a 6 months growth.

The price of mohair was good and producers derived a fair income from the product. The average price for mohair was:—
No. 1 — 12d. per lb. No. 2 — 10d. per lb.

During the current financial year 691 Merino rams were introduced from the Union by the Government for re-sale to Native farmers, making a total of 3,650 rams introduced from outside sources under the sheep improvement scheme since 1935. In addition many rams of good quality were introduced by private enterprise.

2. **CATTLE:** No cattle census was taken during the year. Many scrub bulls were eliminated by (a) castration by officers of the Department, and (b) sale by public auction to Union butchers. Fifty-two pure-bred Afrikander bulls were purchased by the Government in the Union and issued under the cattle improvement scheme to approved cattle breeders, making a total of 215 bulls introduced under that scheme since 1938. This figure does not include 25 bulls introduced in 1937/38 for service in the Bull Camps.

3. **EQUINES:** No census of equines was taken during the year. Many scrub stallions were emasculated by officers of the Department. Three thoroughbred stallions and six Catalonian donkey "Jacks" were purchased by the Government during the present financial year

and issued under the loan scheme to approved horse and mule breeders making a total of 62 stallions and 42 Catalonian "Jacks" purchased since 1936.

For Livestock Tables see Part 4.

Part 2 (c).

Marketing of Animals and Animal Products.

During the year 2,303 head of cattle were sold by public auction under the livestock sales scheme. This figure represents an increase of 519 head of cattle over the previous year and augurs well for the future success of the scheme. The majority of the cattle sold were exported to the Union, having been bought chiefly by butchers resident across the border.

BASUTOLAND CATTLE SOLD.

The following table gives details:—

No. of Sales.	European owned cattle.		Native owned cattle.		Tollies. Selected introduced.	
	No. Sold	Amount Realised.	No. Sold	Amount Realised.	No. Sold	Amount Realised.
18	725	£4,912.5.6	1,165	£8,019.15.6	413	£1,808.18.6

Total amount realised: £14,740 19 6

AVERAGES:

European owned cattle:	£6 15 6½
Native owned cattle:	6 17 8¼
Selected introduced Tollies:	4 7 7

For exports of wool and mohair see Part 4.

Part 3.

NEW LEGISLATION: The following legislative measures were introduced during the year:—

(1) High Commissioner's Notice No. 144

High Commissioner's Notice No. 145 declaring Hendrick's Drift a Port of Entry into Basutoland for cattle and small stock respectively.

Part 4.

	Sheep.	Goats.	Cattle.	Horses.	Mules.	Donkeys
Doses administered for worms ...	7,234,608	2,488,350	96	887	100	50
Inspections ...	,,	,,	—	128,157	—	—
Castrated by Officers	20,377		3,028	1,190	—	—
Treated for external parasites ...	149,918		91	335	—	—
Exported	1,394	37	8,241	417	1	7
Imported	32,924	189	17,188	3,431	152	597
Wool and mohair exported in lbs.	8,823,557	1,222,019	—	—	—	—
Wool classed ...	976,954 lbs.	—	—	—	—	—
Number of hides and skins exported	13,797		10,567	—	—	—
Inoculated for Anthrax	—	—	33,425	—	—	—
Inoculated for Quarter Evil ...	—	—	14,275	—	—	—
Inoculated for Anaplasmosis ..	—	—	391	—	—	—
Inoculated for Horse-sickness .	—	—	—	384		—
Inoculated for Blue Tongue ...	660	—	—	—	—	—
Treated for "Fluke" ...	50,048	—	—	—	—	—
Services by Government Sires .	—	—	1,431	669	—	624

Part 5.

Revenue	Expenditure.
£2,791 13 11	£16,297 0 3

The above figures are for the financial year ended 31st March, 1941. The revenue figure shown does not include revenue paid in through District Commissioners.

Signed: G. T. HENDERSON,
Principal Veterinary Officer.

ANTI-SOIL EROSION WORK.

No basic changes were made during the year in the various anti-soil erosion measures described in previous reports, and the few modifications made in the methods of work were of a minor nature. One Agricultural Officer and three European Foremen were released for military service. As was to be expected, war conditions have, to a

certain extent, adversely affected the output of work and costs of construction. The progress in the principal phases of the work during the year is shown in the following figures:—

Measure.	Previous to 1941.	During '41.	Total to end of '41.
Area terraced ..... acres	62,139	15,503	77,642
Length of terrace constructed-yards	6,706,500	1,659,500	8,366,000
Number of dams constructed	83	19	102
Number of trees planted	506,370	45,450	551,820
Area fenced	2,162	33	2,195

Over 2,158,000 cubic yards of earth was moved in constructing the 1,659,500 yards, or approximately 943 miles of terrace during the year. Many hundreds of thousands of yards of terrace bank was planted to valuable grasses. Numerous grass inlets and meadow strips were established, as these measures have proved themselves to be economical and a safe means for disposal of surplus waters from terrace systems.

The amount of water impounded at full supply level by the nineteen major dams constructed during the year is over 16½ million gallons.

The mean unit cost of all anti-soil erosion work completed during 1941 was 12.43 shillings per acre. This figure includes supervision and transport expenditure, running costs of power plant, cost of labour, etc., in all the various works, such as terracing, tree-planting, dam construction, etc., but excludes overhead departmental expenditure and depreciation on plant and equipment. The figure of 12.43 shillings per acre represents an increase of 1.57 shillings per acre above the unit cost of work for 1940. The increase in costs is due to the rise in the cost of materials, equipment and spare parts for transport and power plant, and the difficulty in obtaining certain spares.

Signed: E. R. ROBERTS,
Engineer to the Agricultural Department.